Amendment to the Specification

Please amend the paragraph starting on page 17, line 14 as follows:

"ATCC" refers to American Type Culture Collection located at Manassas, VA 20108 (ATCC, refer to the website for ~~www/~~atcc.org).

Please amend the paragraph starting on page 17, line 21 as follows:

"NCBI" refers to the National Center for Biotechnology Information, Natl Library Med. (refer to the website for NCBI at the National institutes of Health ~~www.~~ ncbi.nlm.nih.gov/).

Please amend the paragraph starting on page 20, line 17 and ending on page 21, line 6, as follows:

Starch occurs in two forms, amylose, a linear chain polysaccharide, and amylopectin, a branched chain polysaccharide. Amylose contains long unbranched chains in which all the D-glucose units are linked by alpha-1,4-linkages ("α-1,4 linkages" or "1,4-α-D-glucosyl linkages"). Amylopectin is highly branched, the backbone glucosidic linkage being α-1,4, but the branch points being α-1,6 linkages. The major components of starch can be enzymatically hydrolyzed in two different ways. Amylose can be hydrolyzed by α-amylases (E.C. 3.2.1.1), e.g., α-(1-4)-glucan 4-glucanohydrolase. Alpha amylases hydrolyze the α-(1,4)-linkages to yield a mixture of glucose, maltose, maltotriose and higher sugars. Amylose can also be hydrolyzed by a ~~beta-amylase~~ beta-amylase (E.C. 3.2.1.2) [alpha(1,4)-glucan maltohydrolase, 1,4-α-D-glucan maltohydrolase]. This enzyme cleaves away successive maltose units beginning from the non-reducing end to yield maltose quantitatively. The alpha and beta amylases also hydrolyze amylopectin. Neither the alpha and beta amylases can hydrolyze the alpha (1-6) linkages at the branch points of amylopectin. The end product of exhaustive beta-amylase action on amylopectin is a large, highly branched core or beta limit dextrin. A debranching enzyme (E.C. 3.2.1.41,e.g., pullulanases, [α-(1-6)-glucan 6-glucanohydrolase, also called α-(1,6)-glucosidase]) can hydrolyze the α-(1-6) linkages at the branch points. Thus the combined action of β-amylase and the α 1.6-glucosidase can therefore completely degrade amylopectin to maltose and glucose, resulting in a maltose content as high as 60%, 65%, 79%, 75%, 80% or higher of the total sugar content.

Please amend the paragraph starting on page 23, line 26 and ending on page 24, line 5, as follows:

The present invention includes contacting the substrate containing starch with a maltogenic and a starch liquefying enzyme to produce maltose. By maltogenic is meant that the enzyme is able to enzymatically convert starch to maltose. Exemplary maltogenic enzymes include alpha amylases and beta amylases. As described before, amylose can be hydrolyzed by α —amylases (E.C. 3.2.1.1), e.g., α —(1-4)-glucan 4-glucanohydrolase. Alpha amylases hydrolyze the α ~~1-~~(1,4)-linkages to yield a mixture of glucose, maltose, maltotriose and higher sugars. Amylose can also be hydrolyzed by a ~~beta-amylase~~ beta-amylase (E.C. 3.2.1.2) [alpha(1,4)-glucan maltohydrolase, 1,4-α-D-glucan ~~1,4— D-glucan~~ maltohydrolase]. This enzyme cleaves away successive maltose units beginning from the non-reducing end to yield maltose quantitatively. The alpha and beta amylases also hydrolyze amylopectin.